

### STARTER KIT

# For new IHS Web Developers

Welcome to the IHS Web Community!

As the Indian Health Service's Internet presence continues to evolve and grow, a structured introduction process into the IHS web environment was needed. This booklet was created to aid new Web Developers during this integration process and to meet the increasing growth and demand for website development.

With this *Starter Kit*, we hope to acquaint IHS Field Web Developers (which we refer to as the "Content Manager") with currently available Internet information and specific issues related to IHS procedures. It is aimed at the novice user and is intended to serve as a reference piece and guide, which provides staff members with relevant information, as well as, a starting point for building their website's content and information structure. It is also a tool that can help form the foundation for collaborative efforts between the Content Manager and their assigned IHS Web Team Account Representative.

This *Starter Kit* is not intended to provide in-depth information on Internet technologies; but rather, it provides just enough to get the web development process started and to set the basis for further, more in-depth training. **Please refer regularly to the resources we have available on the IHS website for further details and the latest updates.** 

We hope you find this information helpful and that it will assist in your exploration of the Internet and serve as a guide in your web development efforts.

Sincerely,

IHS WEB TEAM home.IHS.gov www.IHS.gov



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# WEBSITE REQUEST FORM

The items listed below are the procedures needed to start the web development process. However, please note that requirements are based on a client-to-client basis: 1. Has your website been given Division Director Level approval? If so, who is the person authorized to approve website development projects for your department? Directors Name: Title: Dept: Street Address: E-mail: Phone #: 2. Determine the level of work required on your website. ☐ YES ☐ NO Does your department need a new website? ☐ YES ☐ NO Does your department already have a website? ☐ YES ☐ NO If so, do you only require minor editorial adjustments? ☐ YES ☐ NO Or, will you require major site revisions? 3. Provide a brief description of your website's purpose and what function it will serve. In other words, what do you expect of your website and what would you like the website to accomplish? For example, will your site announce a new program, provide more information for an existing program, etc., and will the website's function be to disseminate information, gather information from users, or distribute newsletters, etc. This will help us to better determine how we can best assist you in meeting your goals.



# WEBSITE REQUEST FORM

4.	Designate a Content Manager for your department who will be responsible for maintaining the site after completion. This person will coordinate the websites work requirements with their assigned IHS Web Team Account Representative during the development process.
Сс	ontent Managers Name:
Tit	le: Dept:
Stı	reet Address:
Ph	one #: E-mail:
5.	Will there be more then one person within your department who will be responsible for contributing and maintaining content?  YES NO
6.	How many people will require access to the IHS Development Server in order to regularly update information?
7.	Provide the following information for each of your department's key personnel who will need access to our Development Server. This information is required to set-up the "permissions/trusts" to your website's folder. (Note: if more then one person needs access to the development server, please attach a list with the below information.)  NAME:
	USER LOGIN NAME: this is the name you use to log into your computer every morning.
	DOMAIN NAME: available on your log-on screen under "domain name".
	YOUR NETWORK ADMINISTRATOR: you will have to contact your local technical department for this information.



# WEBSITE REQUEST FORM

8.	graphics on your website? Has your department already purchased/installed the required software, i.e. Adobe Photoshop, Acrobat, etc.?
	Comments:
9.	Please contact Leonard Thurman, Manager of Internet Information Services, in our Tucson Office and he will designate a IHS Web Team Account Representative to assist

in developing your site. Mr. Thurman's email address is Lthurman@hqt.ihs.gov,

telephone: (520) 670-4767, and/or fax this form to (520) 670-4297.



# ADVICE & TIPS TO GET YOU STARTED

As with all things on the Internet, information and standards are constantly changing at a rapid pace. This page is designed to aid in your initial introduction to issues that concern Web Developers. However, we strongly suggest that you regularly review the "Help Center" section (which is accessed through the "Help" link on the IHS website header) for updated information:

- Use Existing Services to Leverage Your Website. The IHS Web Team has developed services that are extremely easy to incorporate and will add functionality to your website. Contact your Account Representative to have these services customized for your department. These services include:
  - IHS Hyperlinks Resource Database: This service provides an area that allows documents to be easily exchanged or posted. It allows all your department personnel, regardless of their IHS Area Office location, to post any document or hyperlink. It creates a resource area for your department that can be accessed directly from your website, as well as, from the "Links" hyperlink, located on the IHS Header.
  - IHS WebBoard: This service provides an on-line conferencing area that gives people anywhere in the world the ability to share ideas, exchange information, conduct virtual meetings, collaborate on projects, and post files.
- Keep it Simple. A common mistake made by new Developers is trying to design a site that incorporates complex web structure and advanced form functionalities during the website's initial development. Developing a website takes time, especially if you are building a website from scratch setting high goals for your website is commendable but not if you overwhelm yourself!
- □ Think in Phases. In order to get your website launched in a timely manner, try to remember that the more you try to do, the longer it will take to launch. Therefore, divide the website development project into manageable phases. It's much easier and more effective to "upgrade" an existing site then it is to tackle a large development project all at once.
- □ Take Baby Steps. First, concentrate on your website's content to assure that it is clear and accurate. This is a very important component that can delay the website's launch if content is not planned and/or developed properly. Second, allow yourself time to explore and learn FrontPage 2000 or whatever software you choose to develop your website. You don't have to know everything the software does, just knowing the basic functions is enough to get started, but it's important that you feel comfortable with your web development tools.



# ADVICE & TIPS TO GET YOU STARTED

- Avoid the "Web Maze". Always make sure that accessing every web page is easy and that people browsing your site will not get lost. Remember, it's supposed to be a user-friendly source to get information. If people cannot access the information they need within 15 seconds of entering your site, chances are, they will not return.
- Be Consistent. Graphic and layout consistency helps the user navigate through your website and provides a cohesive presentation. It can be very confusing to people browsing your website if every page looks completely different. It becomes even more confusing when you have links that point to other websites. Without consistency, people browsing your website may not know when they've clicked out of your site.
- □ <u>Keep Web Pages short</u>. Research has found that most people browsing the web will not scroll down further then 3 screen lengths. Therefore, it is much more effective to divide your information into smaller sections and to put each section on a separate web page.
- Avoid "Hidden" hyperlinks. Make sure all hyperlinks are easily accessed and placed in a prominent location within your web pages. Don't place hyperlinks at the bottom of web pages since this location is often overlooked.
- <u>Bigger is not better</u>. Avoid large images since these contain large file sizes and will add considerably to the web page's download time very few people will wait, even for 1 minute, for your web page to download.
- Use Animated gifs sparingly. Animated gifs can be an effective way to draw attention to an important link or section within your web page. However, avoid using too many animated gifs on one page, especially if that page contains text. A lot of moving elements on a web page tend give people headaches.
- Don't use Textured Backgrounds. Stick to a white or a very light background color. Using a textured background makes reading text very hard and is another element that gives people headaches.
- Avoid Image Maps. Image maps should be avoided for two reasons; 1) image maps tend to be larger and, therefore, adds considerably to the web page's download time, 2) since browsers cannot "read" an images content, any navigational or text information embedded in an image will be unreadable for people with vision impairments, as well as, for people who have turned off the image rendering capability on their browser.



# **Quick Reference Sheet to STANDARDS AND GUIDELINES**

This page is designed as a "Quick Reference Resource" to Standards and Guideline issues relevant to IHS website development. The dynamic nature of the Internet dictates that standards must be continually revised; distribution of current standards in a "hardcopy" format is difficult to keep up-to-date. Therefore, please refer regularly to the documents listed below for detailed and current information.

□ <u>World Wide Web Applications and the Internet – Best Practices and Guidelines</u>: This document is published by The Department of Health and Human Services (HHS) and is intended to promote best practices and recommend specific web development guidelines for HHS organizations. http://www.hhs.gov/progorg/oirm/bestguid.html

- <u>IHS Standards and Guidelines</u>: Since the Indian Health Service is an Operating Division (OPDIV) of the Department of Health and Human Services (HHS), the IHS Standards and Guidelines are a supplement to the standards published by HHS. http://www.ihs.gov/GeneralWeb/HelpCenter/WebMaster/Standards/index.htm
- <u>Using the standard IHS Intranet Header and Footer</u>: This document outlines the content, purpose and implementation of the IHS INTRANET Header and Footer.
   http://home.ihs.gov/GeneralWeb/HelpCenter/web/NavBarHelp.asp
- <u>World Wide Web Consortium (W3C)</u>: The World Wide Web Consortium is globally acknowledged as the organization responsible for developing common protocols and to promote the web's evolution and ensure its interoperability. The standards contained in their website is relevant to a general audience and is not IHS specific. <a href="http://www.W3C.org/">http://www.W3C.org/</a>



**DISCLAIMER:** The IHS Standards listed below are intended to aid Content Managers in planning their website's design and layout. However, they **do not replace** the more indepth information available on the IHS website. Please refer regularly to the web version of the **IHS Standards and Guidelines** for further details and the latest updates.

**Basic HTML Code.** All web pages must contain the following html code. Note that these tags must have a corresponding "open" and "closing" tag:

```
<HTML>
<HEAD>
<TITLE>Your Web Page's Title Goes Here</TITLE>
</HEAD>

<BODY>
<!--Place the appropriate HEADER include file here -->
Your web page's content goes here - between the <body> tags.

<!--Place the appropriate FOOTER include file here -->
</BODY>
</HTML>
```

<u>Meta Tags</u>. This is an IHS website standard that provides general information (i.e., author, expiration date, etc.) and allows search engines to index your website properly. The Meta Tags should all be included within the HTML



<u>IHS Header and Footer</u>. Your website is essentially a "section" that will be integrated into the larger IHS website. Therefore, in order to maintain seamless navigation throughout all IHS web pages, the header and footer must be incorporated into every web page on your site. However, due to back-end compatibility issues between .HTM, .ASP and ColdFusion files, different headers and footers had to be created for each file type. Please find the appropriate header and footer for your web pages:

### **INTERNET HEADER:**

(Place "include" code immediately after the HTML opening <BODY> tag.

### ASP and HTM web pages should use these include files:

<BODY>

<!--#include virtual="/GeneralWeb/WebComponents/Navigation/NavBars/navigation.asp"-->

### ColdFusion (CFM) web pages should use this include file:

<BODY>

<CFINCLUDE TEMPLATE="/GeneralWeb/WebComponents/Navigation/NavBars/navigation.cfm">

#### INTERNET FOOTER:

(Place "include" code immediately before the HTML closing <BODY> tag.

#### ASP and HTM web pages should use these include files:

<!--#include virtual="/GeneralWeb/WebComponents/Navigation/NavBars/Footer\_Navigation.asp"-->
</BODY>

### <u>ColdFusion (CFM) web pages</u> should use this include file:

**<CFINCLUDE** 

TEMPLATE="/GeneralWeb/WebComponents/Navigation/NavBars/footer\_navigation.cfm"> </BODY>



#### **INTRANET HEADER:**

(Place "include" code immediately after the HTML opening <BODY> tag.

### ASP and HTM web pages should use these include files:

<BODY>

<!--#include virtual="/GeneralWeb/WebComponents/NavBars/nav\_header.asp"-->

### <u>ColdFusion (CFM) web pages</u> should use this include file:

<BODY>

<CFINCLUDE TEMPLATE="/IntraGeneralWeb/WebComponents/NavBars/nav\_header.cfm">

### **INTRANET FOOTER:**

(Place "include" code immediately before the HTML closing <BODY> tag.

### ASP and HTM web pages should use these include files:

<BODY>

<!--#include virtual="/GeneralWeb/WebComponents/NavBars/nav\_footer.asp"-->

### <u>ColdFusion (CFM) web pages</u> should use this include file:

<BODY>

<CFINCLUDE TEMPLATE="/IntraGeneralWeb/WebComponents/NavBars/nav\_footer.cfm">

**Background Color.** The background color attribute must be included within the <BODY> tag. Some browsers will default to a gray background color if the attribute is not included. It is strongly recommended you use a white background color to maintain content readability. All html documents use the "hexadecimal" numbering system to designate screen colors and consists of six numbers and/or letters. The hex number for the color white is #FFFFFF. Notice that all hex numbers begin with #.

#### Example:

<BODY BGCOLOR="#FFFFFF">



<u>Web Page Alignment</u>. The IHS Website is automatically set to default to "center". However, if you would like your website to align to the left, you will need to add a small ASP code above the opening <HTML> tag. If you do not set this variable and only use the <DIV ALIGN="left"> tag then only your page content will align to the left, the Header and Footer will still default to center.

To make sure the **ENTIRE** page including Headers and Footers align properly, put the below ASP variable **ABOVE** the opening HTML tag. Example:

```
<% NavAlignment="LEFT" %>
<HEAD>
<TITLE>... </TITLE>
</HEAD>
<BODY>
... </BODY>
</HTML>
```

<u>Web Page Width</u>. IHS guidelines recommend that you design your website to fit screens set to 640x480 or 800x600.

To set web page width to fit **640x480** screen resolutions, set the width attribute in the <TABLE> tag to:

```
<TABLE BORDER="1" WIDTH="590">
```

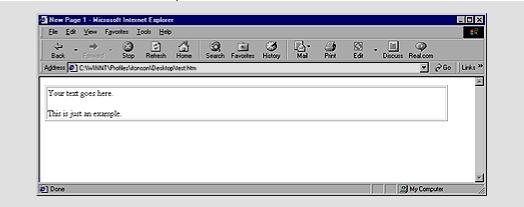
To set web page width to fit **800x600** screen resolutions, set the width attribute in the <TABLE> tag to:

```
<TABLE BORDER="1" WIDTH="750">
```



<u>Tables</u>. In web pages, tables are used to lay out the page content and to assure that all users will view your website exactly as you had intended. Tables are extremely versatile and can be used to lay out complex websites. The example I've used here is a basic table that allows you to control the "page width" of your web pages. To remove the table border, just set the border attribute in the <TABLE> tag to "0". Example:

This is how the table code example will look on the browser:



<u>Image Attributes</u>. All images on your website must contain the width, height and alt attributes. This is to accommodate several requirements: 1) the width & height attributes need to be included in order for browsers to render web pages quickly. The alt attribute needs to be included to accommodate people who have their image rendering feature turned off on their browsers as well as for those with vision impairments and require text interpreters to "view" web sites.

#### Example:

```
<IMG SRC="image_name.gif" WIDTH="750" HEIGHT="50" ALT="Describe
your image's content">
```



<u>Site Launch</u>. During the initial site launch, the assigned IHS Web Team Account Representative will review the website for accuracy, readability, usability and to assure compliance with IHS Standards. After the initial launch, the IHS Content Manager can freely update and launch web pages without the Account Representative's review, unless specifically requested.



A significant difference between websites and other forms of communication is that they give users no indication of what lies beyond the first page. With television, people can look at a TV's program guide and know whether a program is a half-hour sitcom or two hour movie. With printed materials like books, magazines or newspapers, people can pick it up and examine its thickness and weight. Also, they can flip through the pages rapidly and get a fairly good idea of what the content holds, whether it's a fiction novel or a technical reference book. Websites, however, have none of these visual clues.

Therefore, do not assume that users will understand your website's information structure. Once people have left the first page and begin clicking links, there is no notion of depth or linear hierarchy. There is no suggestion of moving from front-to-back, top-to-bottom, or left-to-right. None of the conventional concepts of organizing information apply and all web pages seem to be presented equally on a horizontal structure rather then a linear one. However, despite this, you must somehow convey to users the depth and scope of your site's content, where they can find the information they need, and then provide a navigation system that easily guides them to that information. All this must be easily understood on the website's front page.

Consequently, when building your website, you want to make sure that users are lead through the website in a logical manner. Users should always be able to easily return to the home page and to always have access to other major navigation points in the site. Furthermore, you want to keep in mind that the goal is to provide users with the information they want, using the fewest possible steps, and in the shortest amount of time.

In order to do this and to design an effective website, there are several steps that need to be considered during the very first stages of website development. Here are some things to think about:

- 1. What is the **Purpose** of your website?
- 2. Who is the **Audience** that would benefit from the information contained on your website? What are their needs and concerns?
- 3. Create an **Outline** of your website's major topics.
- 4. Create a logical **Flowchart** to determine how you will guide users through your website.
- 5. Lastly, consider how the website's **Interface** can best reflect all of the above.



### 1. PURPOSE

Defining the purpose of a website may seem simple but it really can be quite difficult, particularly in a team setting where multiple people will be responsible for gathering and developing content. It is not at all uncommon for a website development project to loose momentum due to a lack of focus. Without a clear statement of goals and objectives, it becomes virtually impossible to develop a meaningful website. Below are some sample questions that may help focus your website's purpose:

### What need does your website address?

- Does your department wish to showcase a new program?
- o Is your website meant to describe departmental functions? Or,
- Is your website meant to provide detailed information about specific topics relevant to your department?
- o Is your website a vehicle to gather information from users? Or,
- o Is your website meant strictly to provide information?

### How will your website fulfill this need?

- O Where will the information for your website come from?
- O What kind of information will need to be included?
- Do the materials already exist or will they have to be developed specifically for the website?
- o How often will the information on your site need to be updated?

# 2. AUDIENCE

The next step is to determine who your target audience will be so that you can structure your website to meet their needs. Your audience will determine the guidelines you need to develop clear, accurate and relevant information for your website. After all, if you do not have a general idea of who would most benefit from your website, then how can you gather and coordinate the necessary information? Below are some sample questions to help you define your audience demographic:

- Is age range relevant to the information on you website? For instance, does your website provide information on caring for the elderly or information on prenatal care, etc.
- Who is the information in your website meant to address? Men? Women? Children?



- Is the information relevant to the American Indian population, healthcare professionals, or does it address Government related issues? Other?
- How does the information on your website benefit your target audience?
- What is the skill level of your target audience? For instance, if your website addresses healthcare issues, will the information be relevant to all healthcare professionals or is it specific to Doctors, Nurses, etc.?
- Could the information on your website be used as research material by your target audience as well as the general web population?
- What peripheral topics within your department could be published on the web? This could include potential job opportunities within your industry, department, etc? Perhaps your department provides information relevant to students, education, etc.?

### 3. OUTLINE YOUR WEBSITE INFORMATION

Once the PURPOSE and AUDIENCE has been defined, the next step is to organize the information that will be included in the site. Think in terms of creating a "table of contents" but focused specifically for the Internet. Since web development involves some unique elements, organizing your content must incorporate web presentation issues. Without doing this, the website will seem confused, no matter how accurate and well written the content may be.

**Small Chunks of Information.** Jakob Nielson, a recognized usability expert and author of several books, conducted research studies on how users read information on the web. It was found that users commonly scan information quickly, ignoring large bodies of text. However, once users found the information they needed, they sometimes read (or printed) the information. Therefore, your content must take this into consideration. Text must be easily understood to users who are "surfing" the web quickly, but it must also provide detailed answers. Dividing your information into "digestible chunks" help to address this usability issue.

Smaller "chunks" of information are better suited to the computer screen and the web hyperlink architecture. However, be careful not to subdivide your information too much or you will frustrate your users, let the content itself guide you towards the best organizational solution. Sometimes, it will be better to post long documents on a single web page since it would make little sense to randomly divide documentation that is meant to be a single body of information.

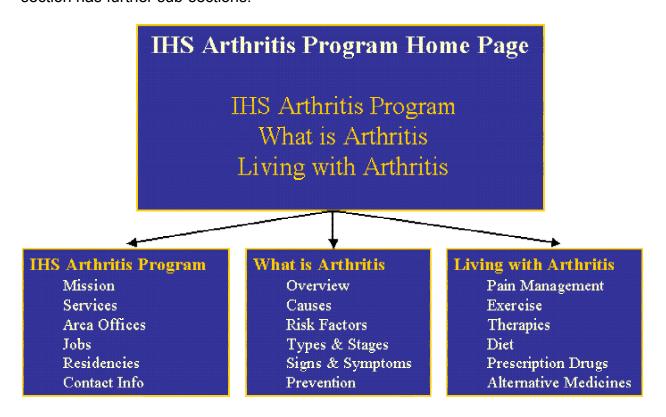


**Information Hierarchy.** Use the "chunks" of information you have established to determine how they could be grouped as sections and sub-sections. These "sections" determine the basic navigation structure for your users and can be used as to create the main navigation elements in your website.

### 4. CREATE A FLOWCHART USING YOUR OUTLINE

FLOWCHARTS deal with how users navigate through your website and how each web page will be accessed. A flowchart is simply a "map" of your website's navigation structure, which is the backbone and foundation by which the entire site is built. The success of your website as a valuable resource for information is largely determined by how well the navigation structure directs users to information within the website.

**EXAMPLE 1:** This example contains a Home Page that links to three main sections; the "IHS Arthritis Program", the "What is Arthritis", and "Living with Arthritis. Note that each section has further sub-sections.



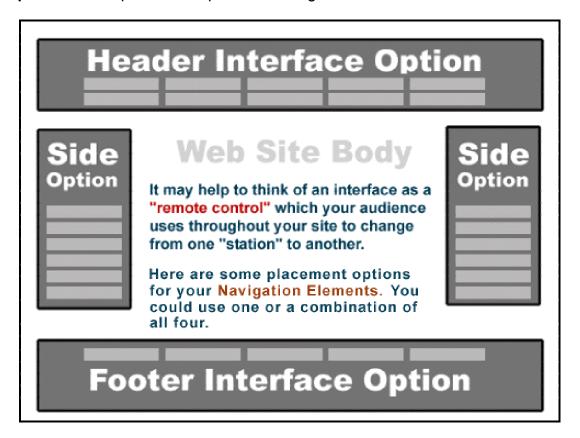


### 6. CREATE THE INTERFACE

A website's interface is the "visual" representation of your websites information structure. The interface should engage the user's attention, enhance important information, and should provide an intuitive guide to your website's resources. Use graphics, but only sparingly, as "links" or to direct the users attention toward a particular section of the page. Structure the design so that information is presented clearly and is easy to read.

**Navigation Elements.** These are the actual text hyperlinks, or images, that point to the website's main topics or sections. The main navigation elements are grouped together so they can be easily included on every page. The "look and feel" of these links should stay consistent from page to page since this is a visual aid that tells users they are still in your website. Designate, on all your web pages, a location where the navigation will be and stay consistent with link descriptions.

**Example 1:** Shows placement options for navigational elements.



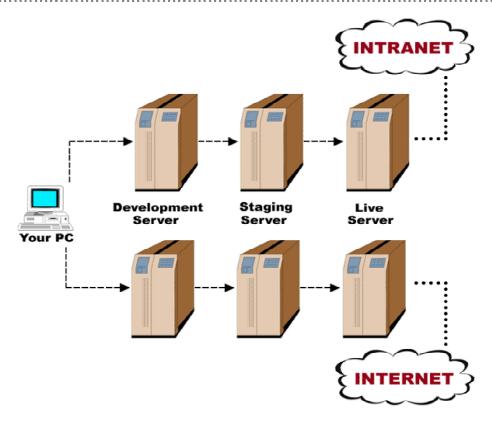


**Example 2:** This is a basic web page layout pattern.





## IHS SERVER STRUCTURE



## **HOW TO PUBLISH YOUR WEBSITE:**

**Step One:** Your Account Representative will coordinate with the appropriate Server Administrator to set up your website's folder on the Development Server. To access your folder, it will be necessary to create "Permissions or Trusts" for all personnel in your department who will need access. A password URL, for both the Development and Staging Servers, will be assigned to your account and your Account Representative will then walk you through the connection process.

**Step Two:** There are two places you can develop your website; on your computer's hard-drive, or directly on the Development Server. Developing on your hard-drive may be faster depending on where your office is located within the IHS Network. However, you will not be able to accurately test how your web pages will look until you moved your files onto the Development Server.

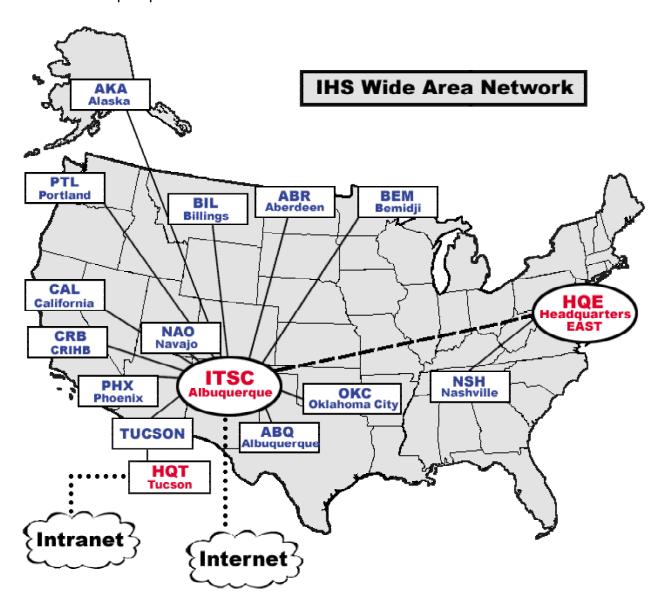
**Step Three:** Once your website has been completed and your Account Representative has performed an initial review, you are ready to launch. A link to your site will be created for you on the IHS website and your Account Representative will walk you through the launch process. This is a very simple process that includes copying your folder onto the Staging Server – that's it! The Live Server automatically copies the Staging Server files every night.



## IHS NETWORK OVERVIEW

**DISCLAIMER:** The information contained within this booklet is intended to provide Content Managers with a general understanding of how information is accessed and distributed through the Internet. However, due to the technical complexity of the IHS Network Structure, it is not possible to fully cover this topic within this Starter Kit. Therefore, **please refer regularly to the "IHS Wide Area Network" website** located at "http://home.WAN.ihs.gov" for further details and the latest updates.

<u>Note</u>: IHS Intranet Server is located at HQT Tucson and the Internet Server is located at ITSC Albuquerque.





## **RESOURCES**

### RESOURCES IN THE IHS WEBSITE:

- □ IHS Hyperlink Resource Database Web Development http://www.ihs.gov/misc/links\_gateway/sub\_categories.cfm?Sub\_Cat\_ID=0502
- □ IHS Webmaster Help
  http://www.ihs.gov/GeneralWeb/HelpCenter/WebMaster/webmaster.asp
- □ IHS Intranet Web Team page http://home.WEBTEAM.ihs.gov/index.cfm
- □ IHS Wide Area Network (WAN) Website http://home.WAN.ihs.gov/index.cfm
- Designing an Effective Web Site: A Planning Process (Powerpoint presentation)
   http://www.ihs.gov/misc/links\_gateway/download.cfm?doc\_id=97&app\_dir\_id=4&doc\_file

http://www.ihs.gov/misc/links\_gateway/download.cfm?doc\_id=97&app\_dir\_id=4&doc\_file=web design\_process.zip

## **OTHER ON-LINE RESOURCES**:

- □ **About.com Web Design**http://webdesign.about.com/compute/webdesign/mbody.htm
- □ **Webmonkey.com** http://hotwired.lycos.com/webmonkey/index.html
- □ Yale C/ AIM Web Style Guide http://info.med.yale.edu/caim/manual/contents.html



## **RESOURCES**

### **BOOKS:**

Interactivity by Design: Creating & Communicating With New Media

Ray Kristof, Amy Satran; Paperback

ISBN: 1-56830-221-5

# The Non-Designer's Design Book:

Design and Typographic Principles for the Visual Novice

Robin Williams, Carole Quandt; Paperback

ISBN: 1566091594

## The Non-Designer's Design Book:

An Easy Guide to Creating, Designing, and Posting Your Own Web Site

Robin Williams, John Tollett

ISBN: 0-201-68859-X

## **Creating Killer Web Sites, Second Edition**

David Siegel

ISBN: 1568304331

### Web Style Guide: Basic Design Principles for Creating Web Sites

Patrick J. Lynch, Sarah Horton

ISBN: 0300076754

## Roger C. Parker's Guide to Web Content and Design

Eight Steps to Web Site Success

Roger C. Parker ISBN: 1558285539